

# Office of Research and Development (ORD)

## Overview

### ISSUE SUMMARY:

EPA's Office of Research and Development (ORD) provides the scientific foundation for EPA to execute its mandate to protect human health and the environment. ORD focuses on:

- Research to Inform Agency Priorities - ORD conducts innovative and anticipatory research to solve longer-term environmental challenges and provide the scientific basis for future environmental protection. This research is applied to the range of EPA program and regional office needs.
- Targeted Research to Meeting Statutory Requirements and Specific Environmental Challenges - ORD provides research support to EPA program and regional offices, as well as states, tribes, and local communities, to help them respond to current environmental challenges.
- Scientific and Technical Support - ORD offers unique expertise and translational capacity to assist EPA program and regions, local, state, and tribal governments, and other Federal agencies as they respond to both emergency and longer-term environmental issues.

### **National Research Programs and Research Planning**

EPA's collective research effort is guided by the EPA Strategic Plan, which identifies the Agency's major goals and highlights the Administrator's core philosophies. Science is an explicit part of the plan, and a critical component of achieving the goals and core philosophies outlined. ORD's research planning aligns six National Research Programs (see Background) to collectively target the science and engineering needed to "deliver a cleaner, safer, and healthier environment for all Americans and future generations," support "more effective partnerships" between Agency researchers and state environmental and public health agencies, and "refocus the EPA's robust research and scientific analysis to inform policy making." These research plans are outlined in the *Strategic Research Action Plans* (StRAPs), which cover four years of research at EPA. The current StRAPs cover 2019-2022. The work outlined in these StRAPs is executed by ORD's Centers and Offices (see background)

### **Role as National Program Manager for Regional Labs**

In FY 2020, ORD was designated as the National Program Manager (NPM) for the Agency's regional labs in FY 2020. As NPM, ORD is responsible for the strategic direction, budgetary alignment, and overall performance of the labs associated with each of EPA's ten regional offices.

ORD is leading efforts to improve the efficiency and effectiveness of lab operations by:

- Building partnerships and leading cross-Agency groups charged with improving the performance of EPA's lab enterprise.
- Developing guidance and policies that promote corporate use of best lab practices.
- Establishing metrics to measure the responsiveness of the regional labs to requests for services from its customers.
- Allocating resources to meet current and future analytical needs.

This change will not change organizational reporting structure. Regional labs will still report to regional leadership.

## UPCOMING MILESTONES:

- **Implementation of Strategic Research Action Plans for 2019-2022** – continue implementing the research outlined in the 2019-2022 StRAPs
- **ORD and Region 9 lab** - renovations and consolidations with Region 9 lab into the ORD Corvallis facility, estimated completion in FY2022
- **ORD and Region 6 lab (Houston, TX)** - renovations and consolidations with Region 6 lab into ORD Ada facility, estimated completion in FY2025
- **ORD and Region 4 lab (Athens, GA)** - will consolidate two currently adjacent labs into federally-owned space, estimated completion in FY2025

## BACKGROUND:

### Offices and Centers

ORD recently underwent a reorganization, led by career staff, to improve the efficiency and effectiveness of the organization. The reorganization did not change the important environmental and health research ORD is tasked with doing. The reorganization did not result in a reduction-in-force or loss of grade; staff were not required to relocate; no locations were closed; nor did it eliminate any of the current functions carried out by ORD. Most ORD staff are doing the same work they did previously, albeit, in a new organization.

The following Centers and Offices were established as part of the reorganization:

- Immediate Office of the Assistance Administrator (IOAA), which includes the National Research Programs and the functions of the NPM for regional labs.
- Center for Computational Toxicology and Exposure (CCTE)
- Center for Environmental Measurement and Modeling (CEMM)
- Center for Environmental Solutions and Emergency Response (CESER)
- Center for Public Health and Environmental Assessment (CPHEA)
- Office of Research Management (ORM)
- Office of Science Advisor, Policy, and Engagement (OSAPE)
- Office of Science Information Management (OSIM)

### National Research Programs

ORD's work is organized into six research programs that identify the most pressing environmental health research needs with input from Agency offices, partners, and stakeholders. These programs are:

- **Air and Energy (A&E)** - This program examines the interplay between air pollution, climate change, and the dynamic energy sector to develop innovative and sustainable solutions for improving air quality and taking action on climate change.
- **Chemical Safety for Sustainability (CSS)** – This program provides the decision-support tools needed to meet the Agency's priority to improve the safe production, use, and disposal of chemicals, while advancing innovative ways to evaluate chemicals, conduct risk management, and prioritize time-critical research.
- **Health and Environmental Risk Assessment (HERA)** – This program is focused on advancing the understanding of the effects that exposure to pollutants have on key biological, chemical, and physical processes that affect human health. What EPA scientists and their partners learn provides the foundation for the Agency's actions to protect public health and the environment.

- **Homeland Security** - This program advances the Agency's ability to carry out its homeland security responsibilities, including protecting and restoring drinking water supplies and infrastructure, and helping communities become more resilient from acts of terrorism that might involve chemical, biological, or radiological weapons, as well as from natural disasters.
- **Safe and Sustainable Water Resources (SSWR)** - This program provides the science and innovative technologies that the Agency and the Nation need to maintain drinking water resources and systems, as well as to protect the chemical, physical and biological integrity of the Nation's waters.
- **Sustainable and Healthy Communities (SHC)** - SHC provides the knowledge, data, and tools to help communities become more sustainable and to help meet current needs in ways that are economically viable, socially just, and beneficial to human health, without compromising the ability of future generations to meet their needs.

### **Special Hiring Authority – Title 42**

Over the past 15 years, ORD has successfully utilized the Title 42 authority (42 U.S.C. § 209 (f) (g)) to bring in critical expertise on term appointments to catalyze change in the Agency's overall research enterprise. Comprising less than 2% of ORD's workforce, these scientists and engineers have strengthened EPA's expertise in critical state-of-the-art science fields. Title 42 appointees have been essential participants in high impact areas of research such as supporting the COVID-19 pandemic response and in leading efforts that support and inform chemical safety under TSCA. EPA is seeking permanent authority with an expanded ceiling to increase the impact of the program across the Agency. EPA's current authority is only applicable to ORD and runs through FY25 with a 50-person ceiling.

### **Facility Locations and FTE**

ORD staff are spread across 12 locations across the country. In 2020, ORD had 1,514 full time equivalents and a \$520.2M budget. There are 2 main research campuses (Cincinnati and RTP) and number of research labs in key locations.

- |                   |                   |                              |
|-------------------|-------------------|------------------------------|
| • Ada, OK         | • Corvallis, OR   | • Narragansett, RI           |
| • Athens, GA      | • Duluth, MN      | • Newport, OR                |
| • Chapel Hill, NC | • Edison, NJ      | • Research Triangle Park, NC |
| • Cincinnati, OH  | • Gulf Breeze, FL | • Washington, DC             |

### **ORD's Regional Science Program**

- Links ORD with EPA's regional offices and promotes the integration of ORD science into regional and state decisions.
- Builds networks and partnerships between ORD and regional office staff
- Provides technical support to regions, states, and communities.

### **ORD's State Engagement Program**

ORD provides science-based tools, approaches and methods, technical support, and training to states to help protect their communities' health and environments. The Program:

- In partnership with Regions, regularly convenes meeting with State environmental health, and natural resource agency leaders to raise awareness of ORD's capabilities to support State needs.
- Engages state staff (through ECOS, ASTHO, APHL, AFWA, and National Emergency Management Association) in research planning and implementation process.
- Gathers input on state priority research needs.
- Works with state partners on joint projects that focus on integrating environment and public health.

- Shares information on ORD research products and tools via webinars, stories/case studies, and trainings.
- Strengthens states' S&T capacity.

#### KEY EXTERNAL STAKEHOLDERS:

- |  |   |  |                                 |                                |   |
|--|---|--|---------------------------------|--------------------------------|---|
| <input checked="" type="checkbox"/> Congress | <input type="checkbox"/> Industry         | <input checked="" type="checkbox"/> States               | <input type="checkbox"/> Tribes | <input type="checkbox"/> Media | <input type="checkbox"/> Other Federal Agency |
| <input checked="" type="checkbox"/> NGO      | <input type="checkbox"/> Local Government | <input checked="" type="checkbox"/> Other (Local unions) |                                 |                                |   |

Congress was interested in ORD's recent reorganization and occasionally request overviews of ORD structure and functions. Unions are involved in moves and other issues.

#### MOVING FORWARD:

- **Title 42 Expansion** – EPA is seeking permanent authority with an expanded ceiling to increase the impact of the program across the Agency. EPA's current authority is only applicable to ORD and runs through FY25 with a 50-person ceiling.
- **NPM: Laboratory Workload Analysis** – In 2020, EPA completed a Laboratory Workload Analysis that included participation from across regional and national programs. The results will allow EPA to understand and ultimately address disparities in laboratory resourcing and workloads. EPA will incorporate its suggested path forward in a Strategic Plan for the NPM.

LEAD OFFICE/REGION: ORD

OTHER KEY OFFICES/REGIONS: PROGRAMS, REGIONS, OMS